Later on another specimen was brought to me mangled almost beyond recognition.

On the 22nd of December of the same year, while driving past Salamis plantation, a Bustard which I took to be of this species got up close to the road.

Mr. W. L. Sclater helped me to identify my specimen.

XII.—Report on the Birds collected by the late Mr. Boyd Alexander (Rifle Brigade) during his last Expedition to Africa.—Part III.\* The Birds of Annobon Island. By David A. Bannerman, B.A., M.B.O.U., F.R.G.S.

The third report on the Alexander collection, which is here issued, is an account of the birds of Annobon, the last island which Boyd Alexander visited before commencing his journey on the mainland. Annobon is much smaller than either St. Thomas or Prince's Island, and has an area of only six and a half square miles. It is, in fact, little more than a volcanic rock rising abruptly from the water. It lies about 60 miles south of St. Thomas and about 100 miles west of Cape Lopez in French Congo and belongs to Spain. Its avifauna is consequently very limited, but, notwithstanding its small extent, it is the home of at least four species or subspecies which are found nowhere else in the world. This is particularly striking, as there are only six resident land-birds on the island.

The four forms restricted to Annobon are:-

- 1. Zosterops griseovirescens Bocage.
- 2. Terpsiphone newtoni Bocage.
- 3. Scops capensis feæ Salvadori.
- 4. Haplopelia hypoleuca Salvadori.

In this paper I have adhered to the arrangement followed in my account of the Birds of Prince's Island ('Ibis,' 1914, pp. 596-631) and the Birds of St. Thomas ('Ibis,' 1915,

<sup>\*</sup> For Part I. see 'Ibis,' 1914, pp. 596-631 & Part II. 'Ibis,' 1915, pp. 89-121.

pp. 89-121). Birds marked with an asterisk are represented in the Alexander collection in the British Museum.

Very few papers dealing with the Birds of Annobon have appeared. Those of which I have made use, including the two great works on African Birds, are:—

Bocage. Jorn. Sci. Lisboa, 1893, pp. 17-18, 44-45; 1903, pp. 55-58.

Salvadori. Mem. Accad. Sci. Torino, 1903 (Orn. Golfo d. Guinea, iii. pp. 93-98).

Reichenow. Vögel Afrikas, vols. i.-iii., 1900-1905.

SHELLEY. Birds of Africa, vols. i.-v., 1896-1912.

The following account of Annobon is taken from 'Boyd Alexander's Last Journey,' edited by Mr. Herbert Alexander, to whom full acknowledgments are due.

# Boyd Alexander's Description of Annobon.

About 9 A.M. on the 13th of February (1909) the faint outline of Annobon came into sight, and we reached the island at 11 o'clock.

Annobon is a volcanic rock rising abruptly out of the sea and clothed with scrubby growth towards the top. The white building of the Roman Catholic Mission, a little way above the beach and surrounded by palm-growth, is the first object to catch the eye. Then close to the shore itself, amongst a picturesque grove of cocoanut-trees, are rows of oblong huts containing almost all that Annobon can boast of in the way of inhabitants. In the interior of the island, especially round the lake, are cassada farms, and bananas are roughly cultivated. The inhabitants number about 1300 souls, and I do not think that I have ever seen a more nondescript-looking lot. It would be difficult, from a racial point of view, to place them.

We landed soon after 12 o'clock, and the next day left at 6.30 A.M. for the lake, which we took about three-quarters of an hour to reach. It is one of the most remarkable geographical features I have seen in Africa. After an ascent of some 1300 feet one is suddenly confronted with a circular lake, about a mile in circumference. It is like the

deep crater of a volcano, tall forest-trees rising up in tiers all round it to a height of some 500 feet. Beyond, the ground begins to rise again till it attains a height of some 3000 feet, forming a narrow watershed, and the whole way the ground falls steeply on both sides to the sea. It is thickly wooded, and this fact raised my hopes of getting a good collection, but after many fatiguing tramps the birds only represented nine species, all of which were previously known to science.

The north side of the island is less thickly wooded—in fact, there are portions of open grass-country, interspersed with plots of cassada and yam, grown by the natives. There is also a fine orange on the island, large and with a thick skin which peels off easily, but the inhabitants live chiefly on fish. On the south side of the island there is a small colony called San Pedro, numbering about thirty people.

The rows of oblong wooden huts of San Antonio, ensconced in a thick grove of cocoanut-trees, is typical of the African villages one sees depicted in the older books of travel—those of Stanley, for example.

The island has poor soil, very stony and volcanic. We remained here until February 20th, when we left in the small Spanish steamer 'Annobon.'

# List of Species.

## 1. \*Zosterops griseovirescens.

Zosterops griseovirescens Bocage, Jorn. Sci. Lisboa, 1893, pp. 18, 44; id. 1903, p. 56; Shelley, Birds of Africa, ii. 1900, p. 186; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 94; Bannerman, Ibis, 1912, p. 237.

a-d. ♂ ♂ ♂ ♀ ad. (Nos. 2, 6, 7, 8). Lake Annobon. 14. ii. 09.

 e, f. 3 3 ad. (Nos. 3, 5).
 Lake Annobon.
 17. ii. 09.

 y. 3 ad. (No. 1).
 """.
 18. ii. 09.

 h. 3 ad. (No. 4).
 """.
 19. ii. 09.

Zosterops griseovirescens can be distinguished at a glance from the other members of the genus inhabiting the islands

in the Gulf of Guinea by its exceptionally large size—the wing measuring from 60-63 mm.—and by the colour of the underparts, which are strongly washed with vinaceous brown.

The Annobon White-eye is confined to the island, where Francisco Newton, who discovered it in 1892, reported that it was common and remarkable for its melodious song. Signor Fea, who collected on Annobon in April and May 1902, noted that Z. griseovirescens was abundant in all the forest-region which covers the greater part of the island. In 1912, Mr. W. P. Lowe visited the island and procured a small series of the White-eye, which he found to be exceedingly plentiful. At the time of his visit, on the 18th of December, he shot one example, which was nesting.

#### 2. \*Terpsiphone newtoni.

Terpsiphone newtoni Bocage, Jorn. Sci. Lisboa, 1893, p. 44; id. 1903, p. 55; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 94.

a. 3 ad. (No. 2). Lake Annobon. 14. ii. 09.

b. 3 ad. (No. 1). ,, , 16. ii. 09.

c. d ad. (No. 3). ,, ,, 17. ii. 09.

Newton's Paradise Flycatcher is said by its discoverer, after whom it has been named, to be generally distributed over the island, where it is known by the name of "Bibi." It is particularly common round the margin of the lake.

T. newtoni closely resembles T. nigriceps (Hartl.), from which it is readily distinguished by its slate-coloured tail, while in T. nigriceps the tail is of the same colour as the back.

# 3. Clamator glandarius.

Oxylophus glandarius (Linn.); Bocage, Jorn. Sci. Lisboa, 1893, p. 44.

Coccystes glandarius Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 95; Bocage, Jorn. Sci. Lisboa, 1903, p. 55.

A single male example was obtained by Newton, who considered it to be a migrant.

## 4. \*Otus capensis feæ.

Scops feæ Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 95.

a. 2 ad. (No. 1). Annobon. 16. ii. 09.

Fea's Scops Owl was described by Count Salvadori, who received six specimens from the collector, after whom it has been named. In the original description Otus capensis feæ is said by Count Salvadori to resemble Otus capensis Smith, but to be darker in colour, and to have the black shaft-streaks in the middle of the feathers of the belly wider, either with pale spots or bands on the inner web, less distinct than in O. capensis, and disappearing towards the base.

The wing-measurements are given as 120-125 mm. in the six examples obtained by Fea. The single bird in the Alexander collection has the wing (which is very worn) 135 mm. in length. Probably all the specimens collected by Fea were males, which would account for the difference of the length of the wing.

In other respects this specimen agrees fairly well with the original description. The shaft-streaks of the feathers of the underparts are particularly broad. Unfortunately the bird has been badly injured by shot and will bear very little handling.

Fea gives the following field-notes on this species:—"I found the birds abundant in deep forest between 400-500 metres. Its note recalls that of our 'Gufo'... very like that of Strix thomensis, but of a little higher tone. I heard it calling also in the daytime."

# 5. Milvus ægyptius parasitus.

Falco parasitus Daud. Traité, ii. 1800, p. 150.

Milvus ægyptius (Gmel.); Bocage, Jorn. Sci. Lisboa, 1893, p. 44; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 44.

Said to be rare. An example recorded from the island by Bocage, no doubt belongs to this form.

The Egyptian Kite of central Africa must be known as

M. e. parasitus (Daud.), as pointed out by Dr. Hartert (Bull. B. O. C. xxxiii. 1914, p. 90). This race differs from typical M. egyptius in being smaller, browner, and darker throughout.

## 6. Phaëthon lepturus.

Lepturus candidus Briss.; Bocage, Jorn. Sci. Lisboa, 1893, p. 45; id. 1903, p. 57.

Phaëthon lepturus Lacép. et Daud.; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 98.

Bocage examined two examples of this Tropic-bird from Annobon. They were obtained on the Pico Estephania, at an elevation of 500 metres.

## 7. Sula leucogastra.

Sulu fiber (Bodd.); Boeage, Jorn. Sci. Lisboa, 1893, p. 45; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 98.

Sula leucogastra Bocage, Jorn. Sci. Lisboa, 1903, p. 57.

Bocage received two males and two females of this species from Francisco Newton, who procured them on Tortuga islet.

# 8. \*Ardea gularis.

Ardea gularis Bosc, Actes Soc. Hist. Nat. Paris, i. 1792, p. 4.

a. 3 ad. (No. 1). Lake Annobon. 20. ii. 09.

A single adult example of this Heron was obtained by Boyd Alexander. It is the first record from the island.

## 9. Butorides atricapillus.

Butorides atricupillus (Afzel.); Bocage, Jorn. Sci. Lisboa, 1893, p. 44; id. 1903, p. 57; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97.

Bocage records the only example of this species which has been obtained in Annobon.

# 10. Numenius phæopus.

Numenius phæopus Linn.; Bocage, Jorn. Sci. Lisboa, 1893, p. 44; id. 1903, p. 57; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97.

Bocage received a female from the islet of Tortuga.

#### 11. Anous stolidus.

Anous stolidus (Linn.); Bocage, Jorn. Sci. Lisboa, 1893, p. 45; id. 1903, p. 57; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97.

Both Newton and Fea obtained specimens of the Noddy. The latter says that it is less common than the following species (M. leucocapillus), in whose company it is to be found.

#### 12. Micranous leucocapillus,

Anous leucocapillus (Gould); Bocage, Jorn. Sci. Lisboa, 1893, p. 45; id. 1903, p. 57.

Micranous leucocapillus Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97.

According to Fea this Tern is very abundant on the rocky and less accessible coasts of the islands.

#### 13. Puffinus griseus.

Puffinus griseus (Gmel.); Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 98; Bocage, Jorn. Sci. Lisboa, 1903, p. 58.

Bocage records a specimen of this Shearwater, which was taken at sea by the Annobon fishermen.

In Boyd Alexander's collection there is a bird of this species, which he shot off Santa Isabel (Fernando Po) on the 8th of January.

# 14. \*Gallinula chloropus meridionalis.

Gallinula c. meridionalis Brehm; Bannerman, Ibis, 1915, p. 116.

Gallinula chloropus (Linn.); Bocage, Jorn. Sci. Lisboa, 1893, p. 44; id. 1903, p. 57; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97.

a, b. ♀♀ (Nos. 1, 2). Lake Annobon. 16. ii. 09.

Two examples of the small African Moorhen were obtained by Alexander at Lake Annobon.

#### 15. \*Turturæna malherbei.

Turturœna malherbei (Verr.); Bocage, Jorn. Sci. Lisboa, 1893, p. 44; id. 1903, p. 56; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 96.

a-g.  $\delta$  ? ad., imm., et juv. (Nos. 1-7). Annobon. 21. ii. 09.

In adult plumage this Pigeon has the breast and belly grey, and loses the speckled rufous feathers which are found in immature birds. In fact, in the above series, if I am correct in my surmise, there is only one specimen (No. 4) which can truly be considered to have gained the fully adult plumage. In several immature specimens the crown of the head is thickly covered with rufous-bespeckled feathers, while in others, which have already begun to assume the green-glossed feathers of the mantle and nape, there is only a small patch of rufous feathers on the hind crown. These rufous feathers are entirely wanting in the adult, and disappear first from the head and lastly from the breast.

Fea's notes on *Turturena malherbei* in Annobon are as follows:—"Very common in the dense forest between 400-500 metres. Its guttural note is tiresomely monotonous, as it calls incessantly from dawn till nightfall. The natives call it 'Lola esalibayan.'"

## 16. Haplopelia hypoleuca.

Haplopelia hypoleuca Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 96.

Boyd Alexander did not succeed in procuring an example of this rare Pigeon, which was discovered on the island of Annobon by Fea.

The type, which is in the Turin Museum, is described at length by Count Salvadori in his paper quoted above.

Fea found it rare. Locally it was known as "Lola sän-sän."

We therefore have four representatives of the genus *Haplopelia* inhabiting the islands in the Gulf of Guinea.

# 17. \*Numida meleagris.

Numida meleagris Linn.; Salvadori, Orn. Golfo d. Guinea, iii. 1903, p. 97; Bocage, Jorn. Sci. Lisboa, 1903, p. 57.

a. 3 ad. (No. 1). 16. ii. 09.

The Guinea-fowl is not rare on Annobon, according to Fea. Alexander only procured one example, which I cannot distinguish from typical N. meleagris. Probably it has been introduced from the mainland.